What is claimed is:

1. A method of interfacing a plurality of server computers with output and input devices at a plurality of user locations, said method comprising:

(a) receiving input signals sent by input devices included in sets of input and output devices at user locations, conveying input signals from said input devices to server computers associated with said user locations and conveying output signals from such server computers to output devices at said user locations;

(b) detecting one or more predetermined helper codes in such input signals and passing said helper codes to a supervisory computer system ;

(c) operating the supervisory computer system so that the supervisory computer system actuates a switch in response to said helper codes to connect the set of input and output devices which sent such helper code to a helper computer;

(d) running an interactive program for selecting one or more of said server computers in said helper computer so that the helper computer interacts with a user at the user location which sent a helper code; and

(e) actuating the switch to connect or disconnect one or more server computers selected during operation of said interactive program and input and output devices at one or more user locations.

2. A method as claimed in claim 1 wherein said step of actuating a switch to connect the server computers selected during operation of said interactive program is performed so as to connect or disconnect one or more computers and input and output devices at the

user location which was connected to the helper computer.

3. A method as claimed in claim 1 wherein said step of detecting said helper codes is performed at one or more central locations remote from said user locations, said helper codes and said input data being conveyed on a common channel from said user locations to said one or more central locations.

4. A method as claimed in claim 1 further comprising the step of detecting action codes other than said helper codes in said input data and actuating said switch to make or break connections between servers and sets of input and output devices at user locations in response to said action codes without the use of said interactive program.

5. A method as claimed in claim 4 wherein said steps of actuating said switch are performed by operation of a switch computer separate from said helper computer.

6. A method as claimed in claim 4 further comprising the step of maintaining data defining a running set of servers for each user location, said step of actuating said switch without the use of said interactive program including the step of switching between servers of the running set for a user location which sends said action codes.

7. A method as claimed in claim 4 wherein a set of input and output devices at a particular user location includes multiple display devices, the method further comprising the step of maintaining data defining a running set of servers for each user location, said step of actuating said switch without the use of said interactive program including the step of switching output of servers of the running set for

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the particular user location to different display
devices·in response to action codes input from such
particular location.

8. A system for interfacing a plurality of
server computers with output and input devices at a
plurality of user locations, said system comprising:

(a) a switch selectively operable to
connect said server computers with output and input
devices at said user locations so that any said server
computers can be associated with a set of output
devices and input devices at any of said user locations
and connected to the associated output and input
devices through said switch, whereby users said user
locations can interact with said server computers;

(b) a supervisory computer system, said
supervisory computer system being connected to said
switch so that said supervisory computer system can
control operation of said switch, said supervisory
computer system including a helper computer, said
helper computer being operative to run an interactive
program for selecting one or more of said server
computers for association with a set of input and
output devices at a user location, said switch also
being selectively operable to associate said helper
computer with a set of input and output devices at any
one of said user locations so that the so-selected set
of output and input devices is connected to the helper
computer through said switch for interchange of inputs
and outputs through said switch; and

(c) code recognition devices connected
to receive the input signals sent by each said input
device, said code recognition devices being operative
to detect one or more predetermined helper codes in
such input signals and to pass said helper codes to

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said supervisory computer system, said supervisory computer system being operative to instruct the switch to connect the set of input and output devices which sent such helper code to said helper computer whereby users at said user locations can selectively interact with said helper computer to select server computers.

9. A system as claimed in claim 8 wherein said interactive program includes determination of a user identity based upon input signals supplied through the input device connected to said helper computer.

10. A system as claimed in claim 9 wherein said interactive program includes accessing a database associating user identities with access rights to servers and controlling access to servers according to the access rights set forth in said database.

11. A system as claimed in claim 9 wherein said interactive program includes displaying representations of available servers on a display device of a set connected to said helper computer so that the display is different for different users.

12. A system as claimed in claim 8 wherein said supervisory computer system is separate from said server computers.

13. A system as claimed in claim 12 wherein said supervisory computer system includes a switch control computer separate from said helper computer, said switch control computer being connected to said switch so that said switch control computer can actuate said switch, said helper computer being connected to said switch control computer so that said helper computer can pass commands to said switch control computer.

14. A system as claimed in claim 13 wherein said helper computer and said switch control computer

are connected to one another independently of said switch.

15. A system as claimed in claim 13 wherein said code recognition devices are connected to said switch control computer.

16. A system as claimed in claim 15 wherein said code recognition devices are operative to recognize one or more action codes included in data input from said input devices and pass said action codes to said switch control computer, said switch control computer being operative to alter connections between said server computers and said input and output devices in response to at least some of said action codes.

17. A system as claimed in claim 16 wherein said interactive program run by said helper computer defines a running set of servers associated with each set of input and output devices, and wherein said action codes include change server codes, said switch computer being operative to actuate the switch to disconnect a one server of the running set from a particular group of input and output devices and connect another server of the running set to those input and output devices in response to said change server codes.

18. A system as claimed in claim 16 wherein said interactive program run by said helper computer defines a running set of servers associated with each set of input and output devices and wherein at least some sets of input and output devices include a plurality of display screens and an input device, whereby a plurality of said servers in the running set may be active simultaneously with their outputs displayed on said plurality of display screens, and

wherein said action codes include change focus codes, said switch computer being operative to actuate the switch to connect the input device to a different one of the active servers in response to said change focus codes.

19. A system as claimed in claim 15 wherein said switch computer is operative to actuate the switch to connect a set of input and output devices to said helper computer in response to said helper codes.

20. A system as claimed in claim 19 including a plurality of helper computers as aforesaid, wherein said switch computer actuates the switch to connect one of said plural helper computers to a set of input and output devices in response to said helper codes.

21. A system for connecting a plurality of input devices at a plurality of user locations to one or more server computers, said system including:

(a) a plurality of user ports for connection to said input devices, said user ports being disposed at one or more central locations, each user port being adapted for connection to one or more input devices at a user location remote from the central location of such user port;

(b) a plurality of server ports adapted for connection to server computers;

(c) a switch for selectively associating said user ports and said server ports so that input signals supplied to each user port by an input device connected thereto will be conveyed to the associated server port and to a server connected to such server port; and

(d) one or more code recognition devices associated with said user ports and located at said one

or more central locations, said code recognition devices being operative to detect one or more command codes in input signals supplied through said user ports and provide a code output including code data

5 representing such command code and address data representing the user port carrying the input signals in which such command code was detected.

22. A system as claimed in claim 21 wherein one or more code recognition devices includes a

10 plurality of user interface processors, each said user interface processor being connected to one or more of said user ports, the system further including at least one control processor and a control data channel connecting a set of said user interface processors with

15 each said control processor so that the particular user interface processor of the set which sent data to the control processors can be identified, each said control processor accepting data representing said command codes and assigning said address data based at least in

20 part upon the identity of the user interface processor which sent such data.

23. A system as claimed in claim 22 wherein each said user interface processor is associated with only one said user port.

25 24. A system as claimed in claim 22 wherein said at least one control processor includes a plurality of said control processors each associated with a different set of user interface processors, each said control processor being operative to assign

30 address data based in part upon the identity of the control processor and in part upon the identity of the user interface processor within the set of user interface processors associated with that control processor.
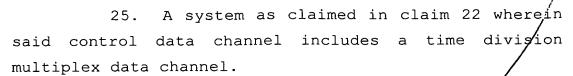
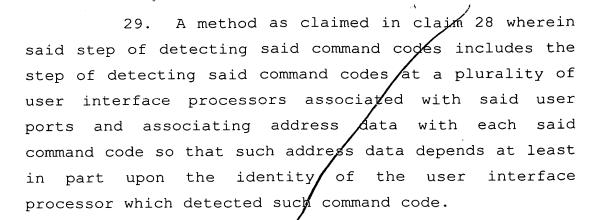25.   A system as claimed in claim 22 wherein said control data channel includes a time division multiplex data channel.

26.   A system as claimed in claim 22 wherein each said user interface processor is operative to delete said command codes from input data signals supplied to such user interface processor, and to pass said input data signals without said command codes into a user data channel, said switch being operative to connect the user data channel of said user interface processors with said server computers.

27.   A system as claimed in claim 26 wherein said server ports and said user ports include video connections, said switch being operative to connect the video connection of each server port to the video connection of the user port associated with such server port.

28.   A method of operating a plurality of server computers from a plurality of user locations comprising the steps of:

(a) sending input data in a data stream along with command codes from input devices at said user locations to user ports at one or more central locations;

(b) detecting said command codes at said one or more central locations, forwarding said command codes to a supervisory computer and forwarding said input data from each said user location through a switch to one or more of said server computers; and

(c) actuating said switch in response to at least some of said command codes to change connections between said one or more of said server computers and said input devices.

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29.   A method as claimed in claim 28 wherein said step of detecting said command codes includes the step of detecting said command codes at a plurality of user interface processors associated with said user ports and associating address data with each said command code so that such address data depends at least in part upon the identity of the user interface processor which detected such command code.

add A1